

Weather Products

Forecast Products

Zone Forecast Product	ZFP	Probably the most used product is the Zone Forecast Product. A zone forecast highlights the expected sky condition, temperature, and probability of precipitation affecting various <i>zone</i> groups for each 12-hour period out to 48 hours. Wind direction and speed are also included in the forecast out to 24 hours. At the end of each zone grouping, an extended forecast generalizes the weather for the next 3 to 5 days. WFO Paducah issues the zone forecast by 4 a.m. and 3:30 p.m. under the header SDFZFPPAH. This forecast is updated when needed to meet changing weather conditions.
State Forecast Product	SFP	The State Forecast Product is routinely issued twice daily by approximately 4 a.m. and 4 p.m. However, it may be updated when changes are needed (e.g., when a severe weather watch has been issued). It is similar in appearance to the zone forecast but is a generalized forecast for an entire <i>state</i> . Probability of precipitation and wind forecasts are not detailed, although an extended forecast covering days three through five is included at the end. The WFO's in St. Louis, Chicago, Indianapolis, and Louisville issue this product under the respective headers STLSPFMO, CHISFPIL, INDSFPIN, and SDFSFPKY.
Area Forecast Discussion	AFD	WFO Paducah issues the Area Forecast Discussion twice daily by 4 a.m. and 3:30 p.m. under the header SDFAFDPAH. It provides scientific insight into the thought process of the forecaster at Paducah and is meant as a tool to help <i>coordinate</i> forecasts with surrounding offices. In this product, the forecaster usually focuses on a "forecast challenge of the day" and utilizes meteorological reasoning to compare numerical models, indicate temperature and precipitation trends, etc. At the end of the product, any headlined weather (watches, advisories, etc.) are detailed along with the areal extent of those phenomena. If no headlined weather is expected, ".PAH...NONE" appears at the bottom of the discussion.
Area Weather Summary	AWS	Issued by WFO Paducah under the header SDFAWSPA by 5 a.m. and 4 p.m., the Area Weather Summary provides an overview of weather conditions over the past 12 hours. This is followed by a synopsis of the upcoming weather and generalized 24-hour forecast for the four-state region. This product may be supplemented with regional temperatures, precipitation reports, or a radar summary if weather and time permit.
Short Term Forecast	NOW	The Short Term Forecast (NOWcast) is the primary method of communicating plain-language forecasts of <i>short-term</i> weather to the general public. Issued by WFO Paducah under the header SDFNOWPAH, the short-term forecast is generally valid for up to the next 6 hours. The product is written in a conversational style that flows smoothly, providing the most important weather elements at the beginning, sometimes in the form of a headline. The nowcast is an event-driven forecast designed to handle all weather conditions except severe weather. It is issued as needed.

Terminal Aerodrome Forecast	TAF	The Terminal Aerodrome Forecast is valid for 24 hours from the issuance time and provides a forecast of winds, visibilities, expected weather, and cloud heights and ceilings for a particular airport. WFO Paducah routinely disseminates TAF's four times daily for three airports, including Paducah, Evansville, and Cape Girardeau, under the respective headers SDFTAFPAH, INDTAFEVV, and STLTAFCGI.
Transcribed Weather Broadcast	TWB	Transcribed Weather Broadcasts are another means of service to the aviation community. These forecasts are valid for 12 hours and describe the weather for major aircraft routes in the region. WFO Paducah forecasts for two TWB routes. Route 236, under the header STLTWB236, covers flights between Cape Girardeau and Springfield, Missouri. Route 232, under the header STLTWB232, covers flights between St. Louis, Missouri; Cape Girardeau, Missouri; and Memphis, Tennessee. TAF's and TWB's are not disseminated via the NOAA Weather Wire Service (NWWS) or through the Family of Services, thus limiting general public access.
Fire Weather Forecast	FWF FWM	The Fire Weather Forecast is a service provided only to federal agencies. The forecast contains information on the sky cover, temperature, humidity, chance and type of precipitation, stability, mixing height, and other factors pertinent to smoke and fire management. The Fire Weather program is most active in the spring, when new foliage is emerging, and again in the fall, when vegetation is transitioning into winter. WFO Paducah disseminates the fire weather forecast by 8:30 a.m. and 3 p.m. during fire weather season under the header SDFFWPAH. A separate NFDRS coded forecast is issued under the header SDFFWMPAH at 1 p.m. daily for Big Springs and Doniphan, Missouri, and Dixon Springs, Illinois.

Severe Weather Products

Severe Thunderstorm & Tornado Watch	SEL	Among the numerous products that are issued by the Storm Prediction Center in Norman, Oklahoma is MKCSELn, where n=0-9 and is the last digit in the watch number. This product gives the specifics for Severe Thunderstorm and Tornado Watches. The product MKCSAwN is always issued just prior to MKCSELn and gives the vital preliminary watch information in an abbreviated format. Updates on severe weather watches are disseminated in a status report under the header MKCWWAMKC. Severe weather outlook information may be found in the products issued under the headers MKCSWODY1, MKCSWODY2, MKCSWOMCD, and MKCPWOMKC.
Severe Thunderstorm Warning	SVR	A Severe Thunderstorm Warning is issued when either or both of the following is <i>occurring</i> or is <i>imminent</i> : $\frac{3}{4}$ " diameter <i>hail</i> or larger; <i>winds</i> of at least <i>50 knots (58 mph)</i> . The warning includes the counties affected, the duration, the basis for the warning, towns or cities directly in the path, an indication of the primary threat, and call-to-action statements advising the public of safety precautions. WFO Paducah issues a Severe Thunderstorm Warning under the header SDFSVRPAH.
Tornado Warning	TOR	A Tornado Warning is issued when a tornado is expected to develop or one is sighted by a SKYWARN spotter or public official. A Tornado Warning may also be issued if Doppler radar shows the presence of strong rotation within a storm. The warning is as specific as possible, including the counties affected, the duration, and towns directly in the path of the storm. Call-to-action statements are also included. WFO Paducah issues a Tornado Warning under the header SDFTORPAH.

Severe Weather Statement	SVS	Issued by WFO Paducah under the header SDFSVSPAH, a Severe Weather Statement is used to follow-up a severe weather warning. This product updates the user on the current position and expected movement of the storm and includes reports of severe weather that have already occurred with the storm. An SVS can be issued to cancel a warning early and will <i>usually</i> be issued when the warning expires. (Please note: the ampersand (&) at the end of a product, such as the SVS, is intentionally placed there to alert the Storm Prediction Center that the product contains a storm report.)
Weather Watch Redefining Statement	SLS	A Redefining Statement is issued for every tornado and severe thunderstorm watch that affects at least one of the four states covered by WFO Paducah. This product is disseminated by the WFO's in St. Louis, Chicago, Indianapolis, and Louisville under the respective headers STLSSMO, CHISLSIL, INDSLSIN, and SDFSLSKY. A Redefining Statement lists the type of watch, its corresponding number, the expiration time of the watch, all counties in a particular state in the watch (counties listed by geographical area), and large cities and towns in the watch area.
Local Storm Report	LSR	A Local Storm Report is used to distribute severe weather reports to the public. It is issued as reports are received and may occasionally be issued as a collection of all reports received after an event is over. Delayed verification reports are disseminated after an event is over as well. WFO Paducah issues the Local Storm Report under the header SDFLSRPAH.

Hydrological Products

(Flash) Flood Watch	FFA	A (Flash) Flood Watch is issued to alert the public that there is a <i>threat</i> of flash flooding, but the occurrence is neither certain nor imminent. The watch usually covers a large geographic area. WFO Paducah issues a (Flash) Flood Watch under the header SDEFFAPAH.
(Flash) Flood Warning	FFW	Disseminated by WFO Paducah under the header SDEFFWPAH, a Flash Flood Warning is issued when <i>rapidly</i> rising water is expected to threaten life and/or property. A Flash Flood Warning includes the counties affected, the duration, the basis for the warning, and brief call-to-action statements to alert the public of safety precautions. It focuses on communities and areas where flooding is <i>imminent</i> or is already <i>occurring</i> . This product is followed up with at least one Flash Flood Statement. If the flooding has persisted for at least six hours, a Flood Warning is issued instead.
(Flash) Flood Statement	FFS	A (Flash) Flood Statement is used as a follow-up to (Flash) Flood Warnings and Watches. The statement contains the latest and often more detailed information on the event. A (Flash) Flood Statement is also the means to disseminate any flooding reports received from emergency or public officials. In addition, it serves to cancel a warning or watch early and is always issued when a warning or watch expires. The header for a (Flash) Flood Statement issued by WFO Paducah is SDEFFSPAHA.
Urban & Small Stream Flood Advisory	FFS	An Urban & Small Stream Flood Advisory is used to alert the public of flooding that is only an <i>inconvenience</i> and does <i>not</i> pose a major threat to life and/or property. Generally, urban flooding refers to flooding of streets and low-lying, poor-drainage areas such as underpasses and storm sewer drains. Small-stream flooding refers to natural, rural streams and creeks. WFO Paducah issues this product under the header SDEFFSPAHA.
Flood Warning	FLW	A Flood Warning is issued when a main-stem river is expected to rise above flood stage or is already at or above flood stage during rapid rises. This product details crest information for selected sites along the river. WFO Paducah issues this product under the header SDEFFLWPAH.

Flood Statement	FLS	A Flood Statement is used to update and expand on information in a Flood Warning. Moreover, the last flood statement of a flood event is used to terminate a flood warning. WFO Paducah issues a Flood Statement under the header SDFFLSPAH.
River Statement	RVS	A River Statement is used to alert the public of a non-routine, <i>non-flooding</i> situation. Most of the time, this situation is a significant or rapid rise on a river that is not expected to threaten life and/or property. WFO Paducah issues this product under the header SDFRVSPAH.
Flood Potential Outlook	ESF	A Flood Potential Outlook is used to inform the public of the potential for large-scale flooding in the four-state region. It is most often utilized in the spring but may be used at any time. WFO Paducah usually issues this outlook when the threat of flooding is high. It is disseminated under the header SDFESFPAH.
River or Precipitation Summary	RVA	The River Summary takes on many forms, providing the public with a plethora of hydrologic information for the Paducah Hydrologic Service Area (HSA). WFO Paducah issues three RVA products in the course of a day between 9:30 a.m. and noon. The first lists all the 24-hour precipitation amounts reported to our office by NWS cooperative observers. The second RVA details morning river and lake information along with 24-hour changes and precipitation information. Finally, the third RVA summarizes forecasts of expected river levels out three to five days. All three products are issued under the header SDFRVAPAH.

Climatological Products

Daily Climatic Summary	CLI	The Daily Climatic Summary provides a summary of past weather conditions. The product is routinely issued during the early morning hours under the header SDFCLIPAH for Paducah and INDCLIEVV for Evansville. A shortened version of the climate summary is issued around 5 p.m. each day. Daily information for Cape Girardeau may be found at the end of the early morning Paducah climate summary.
Monthly Climatic Summary	CLM	The Monthly Climatic Summary is similar to the Daily Climatic Summary. The product is issued at the first of each month and provides a summary of all the climatological parameters for the previous month's weather. It is issued under the header INDCLMEVV for Evansville and SDFCLMPAH for Paducah.
Record Report	RER	A Record Report is disseminated whenever a record-breaking phenomenon occurs. The product may be used for nearly all climatological conditions but most commonly for record maximum or minimum temperatures. The header for Paducah's record report is SDFRERPAH. For Evansville, the header is INDREREVV.
State Weather Roundup	SWR	The State Weather Roundup is issued at the top of each hour and lists current weather conditions for major cities and towns in a particular state. This product is compiled for Missouri, Illinois, Indiana, and Kentucky under the respective headers STLWRMO, CHISWRIL, INDSWRIN, and SDFSWRKY.
State/Regional Temperature & Precipitation Summary	STP RTP	The State Temperature and Precipitation Summary is issued twice a day—morning and evening. It lists the high and low temperatures along with precipitation and snow depth for selected cities. This product is issued by the WFO's in St. Louis, Chicago, Indianapolis, and Louisville under the headers STLSTPMO, CHISTPIL, INDSTPIN, and SDFSTPKY respectively. A regional version of this product is issued twice daily by WFO Paducah under the header SDFRTPPAH.

Winter Weather Products

Unlike severe weather events, winter storms have the capability to completely immobilize large areas of a state and possibly several states simultaneously. Thus, winter weather watches, warnings, and advisories are issued for relatively *large* geographic areas of a state rather than for one specific county. WFO Paducah issues winter weather products entitled “WINTER WEATHER MESSAGE” under the header SDFWSWPAH.

A WSW is used to:

- ✓ Issue the initial winter weather watch, warning, or advisory
- ✓ Change the type of watch, warning, or advisory
- ✓ Add or delete counties under a watch, warning, or advisory
- ✓ Change the expiration time of the watch, warning, or advisory
- ✓ Update information pertaining to the watch, warning, or advisory
- ✓ Cancel a winter weather watch, warning, or advisory

A WSW is issued for the following: Winter Storm Watch, Winter Storm Warning, Blizzard Warning, Ice Storm Warning, Winter Weather Advisory, and Freezing Rain or Freezing Drizzle Advisory. Definitions for each of these watches, warnings, and advisories are provided next.

Winter Storm Watch	Issued if there is a threat for heavy snow or sleet, significant accumulations of freezing rain or freezing drizzle, or any combination thereof. Usually issued for the second and third periods of a forecast (i.e., 12 to 36 hours in advance of the event). The definition of heavy snow in the Paducah forecast area is 4 inches or more in 12 hours, or 6 inches or more in 24 hours.
Winter Storm Warning	Issued if there is a high probability that a mix of severe winter weather will occur, such as heavy snow or sleet, significant accumulations of freezing rain or freezing drizzle, or any combination thereof. Normally issued for the first forecast period (i.e., less than or equal to 12 hours in advance of the event). A Winter Storm Warning may be extended into the second period of the forecast if the weather situation warrants.
Blizzard Warning	Issued for winter storms with sustained winds or frequent gusts of 35 mph or greater, and considerable falling and/or blowing snow reducing visibilities to ¼ mile or less. These conditions should last for at least 3 hours.
Ice Storm Warning	Issued for those winter storms expected to produce a damaging ice accumulation of ¼ inch or more.
Winter Weather Advisory	Issued when a mixture of precipitation, such as snow, sleet, and freezing rain or drizzle, is expected but accumulations will not reach warning criteria. If all snow, accumulations should average at least 2 inches, but less than 4 inches. If only freezing rain or drizzle is expected, then the product is issued as a Freezing Rain or Freezing Drizzle Advisory. These criteria are subjective and may vary depending on the time of year and the public’s perceived acclamation to winter weather conditions.

Non-Precipitation Weather Products

Non-precipitation phenomena such as high wind, frost, heat, and fog can be just as hazardous as heavy rain or snow. Like winter-weather events, non-precipitation events often cover large geographic areas, and thus advisories and warnings are issued for relatively *large* groups of counties. WFO Paducah issues non-precipitation weather products entitled “WEATHER MESSAGE” under the header SDFNPWPAH.

A NPW is used to:

- ✓ Issue the initial non-precipitation warning or advisory
- ✓ Change the type of warning or advisory
- ✓ Add or delete counties under a warning or advisory
- ✓ Change the expiration time of the warning or advisory
- ✓ Update information pertaining to the warning or advisory
- ✓ Cancel a non-precipitation weather warning or advisory

A NPW is issued for the following: High Wind Warning, Excessive Heat Warning, Wind Chill Warning, Wind Advisory, Heat Advisory, Wind Chill Advisory, Freeze Advisory, Frost Advisory, and Dense Fog Advisory. Definitions are provided below.

High Wind Warning	Used when sustained winds of 40 mph or greater are expected to last for one hour or longer, or for non-thunderstorm winds of 58 mph or greater for any duration.
Excessive Heat Warning	Issued when the heat index equals or exceeds 115°F for three hours or longer with a minimum heat index of at least 80°F during a 24-hour period. Also issued when Heat Advisory criteria persist for at least 3 days. In either of these scenarios, the heat becomes dangerous for a large portion of the population.
Wind Chill Warning	Issued when wind-chill temperatures are expected to reach –35°F or colder.
Wind Advisory	Used when sustained winds of 30 mph or greater are expected to last for one hour or longer, or for sustained winds or gusts to at least 45 mph for any duration.
Heat Advisory	Issued when daytime heat indices are at or above 105°F along with nighttime heat indices at or above 80°F.
Wind Chill Advisory	Issued when wind-chill temperatures are expected to reach –20°F to –34°F.
Freeze Advisory	Used during the growing season when air temperatures are expected to be <i>at or below</i> 32°F over a widespread area for a significant period of time. Adjectives such as <i>killing</i> , <i>hard</i> , or <i>severe</i> may be used as appropriate to describe the freeze.
Frost Advisory	Used during the growing season if overnight lows are expected to reach the lower to middle 30s with light winds. Used if a <i>widespread killing</i> frost is expected to pose a danger to growers. If a freeze and frost are both expected, then a Freeze Advisory supersedes a Frost Advisory.
Dense Fog Advisory	Issued when dense fog covers a widespread area reducing visibilities to ¼ mile or less.

General Public Information Products

Special Weather Statement	SPS	The Special Weather Statement is mainly used as an <i>outlook</i> or <i>update</i> product. For example, the SPS is used to provide advance notification of possible severe winter weather conditions in a Winter Weather Outlook. It is also used to cancel severe weather watches after the threat has subsided. WFO Paducah issues the Special Weather Statement under the header SDFSPSPAH.
Thunderstorm Advisory	SPS	Issued by WFO Paducah under the header SDFSPSPAH, the Thunderstorm Advisory alerts the public to thunderstorms approaching severe criteria. This includes strong storms that generally produce winds of at least 40 mph, hail of any size, and/or unusually intense cloud-to-ground lightning. This product may be replaced by a Tornado or Severe Thunderstorm Warning as conditions warrant.
Thunderstorm Outlook	SPS	The Thunderstorm Outlook provides scientific insight into the factors creating the chance for thunderstorms and/or the risk for severe weather. It also outlines the area with the greatest potential for thunderstorms or severe weather and gives emergency managers a heads-up as to whether spotter activation may be requested. WFO Paducah issues the Thunderstorm Outlook under the header SDFSPSPAH around 10 a.m. to noon whenever thunderstorms are in the forecast, regardless of the threat for severe weather. We also issue the Thunderstorm Outlook around 4 to 6 a.m. whenever the Storm Prediction Center advises that there is a moderate or high risk of severe weather in a part of the four-state region for the current day. Issuance of this product at all other times is at the discretion of the forecast team on duty.
Public Information Statement	PNS	The Public Information Statement is used to disseminate extra <i>value-added</i> information. A wide range of topics may be covered, including summaries of past weather events, climatological events and anomalies, precipitation reports from our NWR Rain Spotter Network, safety rules for various weather phenomena, and announcements of upcoming events.